In Focus

Robert A. Gross, MD, PhD, FAAN, Editor-in-Chief, Neurology®



Notable in Neurology this week

This issue features an article that examines the effect of cenobamate on the photoparoxysmal-EEG response of patients during intermittent photic stimulation as proof-of-principle of efficacy in patients with epilepsy; another investigates the risk posed by white matter hyperintensity load, with respect to recurrent stroke and mortality after ischemic stroke, in patients with initial stroke. A featured Views & Reviews article describes the clinical and research advances in the understanding of minor hallucinations in Parkinson disease and provides direction for obtaining further insight into their implications for management and prognosis.

Articles

Language boosting by transcranial stimulation in progressive supranuclear palsy

The authors provide proof-of-concept that transcranial stimulation in progressive supranuclear palsy (PSP) can improve lexical/semantic access to words. They used a sham-controlled double-blind crossover design applied to 12 well-characterized patients with PSP. Results set the stage for multiday stimulation regimens in large PSP cohorts, which might lead to therapeutic effects promoted by neuroplasticity.

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From editorialists Vanacore & Canevelli: "In the absence of effective treatments for these diseases, the possibility of attenuating language and other cognitive disturbances through noninvasive, well-tolerated procedures should increasingly be regarded as a promising therapeutic option."

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Quantity and quality of mental activities and the risk of incident mild cognitive impairment

The authors explored the qualities of modifiable lifestyle factors that may reduce risk of mild cognitive impairment (MCI). They sought to determine whether timing of engagement, the number of activities, or the frequency of engagement influenced risk of MCI. Engagement in many mentally stimulating activities, especially in late life, correlated with a decreased risk of MCI. Page 242

From editorialists Skylar-Scott et al.: "This is an observational study, and it does not provide evidence that cognitively stimulating activities cause a reduction in MCI incidence. Therefore, it remains possible that low activity is a consequence of incipient MCI or that some unmeasured variable may account for the activity–MCI association."

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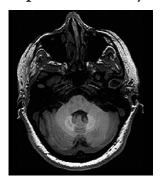
Motor cortex inhibition and modulation in children with ADHD

This study provides evidence for a motor biomarker of attention-deficit/hyperactivity disorder (ADHD). By stimulating the motor cortex during response selection/inhibition, ADHD severity in children correlated with both reduced physiologic inhibition and reduced upmodulation from rest to task states. ADHD symptoms may result from diminished capacity for targeted cerebral engagement. Page 247

Continued

In Focus

Cumulative gadodiamide administration leads to brain gadolinium deposition in early MS



In this study, similar gadolinium deposition occurred in patients with multiple sclerosis who received 5 to 8 doses of gadodiamide, while patients with <5 doses were similar to healthy controls. However, there was no clear association between gadolinium deposition and disease progression. These findings can assist in determining risk vs benefit of gadolinium administration for patients with multiple sclerosis.

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NB: "Discrepancy in redetermination of SMN2 copy numbers in children with SMA," p. 267. To check out other Clinical/Scientific Notes, point your browser to Neurology.org/N. At the end of the issue, check out the Resident & Fellow Emerging Subspecialties in Neurology article discussing the current opportunities and future options for medical education infrastructure within neurology. This week also includes a NeuroImage titled "Contrast enhancement of hypertrophic dura mater in MOG antibody-associated disease."

NEW EPISODE



August 6, 2019

CME Opportunity:

Listen to this week's Neurology Podcast and earn 0.5 AMA PRA Category 1 CME Credits™ by answering the multiple-choice questions in the online Podcast quiz.

Cumulative gadodiamide administration leads to brain gadolinium deposition in early MS (see p. 248)

- 1. Cumulative gadodiamide administration leads to brain gadolinium deposition in early MS
- 2. What's Trending: Network localization of cervical dystonia based on causal brain lesions

In the first segment, Dr. Stacey Clardy talks with Dr. Robert Zivadinov about cumulative gadodiamide administration leading to brain gadolinium deposition in early MS. In the second part of the podcast, Dr. Jeffrey Ratliff focuses his discussion with Dr. Michael D. Fox on his Brain paper on network localization of cervical dystonia based on causal brain lesions. The paper is available at: https://academic. oup.com/brain/article-abstract/142/6/1660/5491101?redirectedFrom=fulltext.

Disclosures can be found at Neurology.org.



Spotlight on the August 6 issue

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